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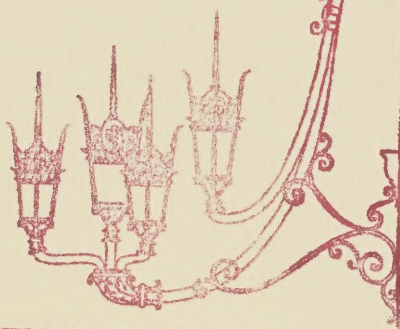
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Seattle - Boston Profile

Demographics, Economy, Development, Planning

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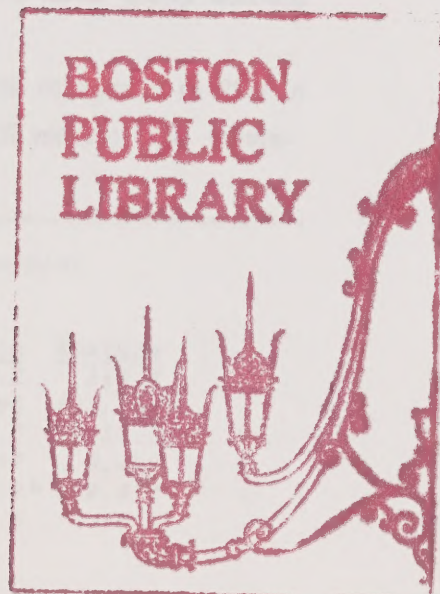
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BACKGROUND

Population and Housing. Seattle is the 25th largest city in the nation. Its population as of July, 1984 was 488,474, a one percent decrease from March 1980. That change represents stability compared to the 15 percent loss of population between 1970 and 1980. The City of Boston, with 601,095 people, has 112,000 more residents than Seattle according to mid-decade estimates.

grew 6.8
percent between
1980-1985

The inhabitants of Seattle and Boston have somewhat different profiles and settlement patterns. Seattle encompasses three times the area of Boston, yet, with a smaller population, has a density of 3,415 persons per square mile compared to a density of 11,928 in Boston. While 58 percent of Boston's residents were born in Massachusetts, only 44 percent of Seattle's inhabitants were born in Washington. See Table 1.

Seattle has less ethnic diversity than Boston. Eight of every ten Seattle residents are white, compared to seven of ten in Boston. While blacks are the largest ethnic minority group in Seattle with 9.4 percent of the population, Asian and Pacific Islanders make up 7.9 percent of the total. The latter group account for 2.9 percent of Boston's population.

The median age of Seattle residents is high: 32.4 years compared to 28.9 in Boston. Only 17.6 percent of Seattle residents are under 18 years of age, where-

TABLE 1. Demographic Comparison of Boston and Seattle:
Population, Race, and Ethnicity

	Boston	Seattle
Land Area (sq.mi.)	47.2	144.6
Population (1980)	562,994	493,846
Percent Change 1970-1980	-12.2	-15.5
Population per Square Mile	11,928	3,415
Population (July 1984 mid-decade)	570,719*	488,474**
Percent Change 1980-1984	1.4	-1.1
Race (percent of total)		
White	70.5	80.2
Black	22.5	9.4
Asian & Pacific Islander	2.9	7.9
Spanish Origin	6.5	2.6

* Boston's estimated 1985 population is 601,095, a 6.8 percent increase from March 1980.

as Boston has 22 percent under 18. The higher median age coincides with small average household size, 2.15 persons per household, compared to Boston's 2.40 average. The shares of family and nonfamily households are nearly equivalent in the two cities, but the median household income was higher in Seattle by nearly \$4,000, or 30 percent. Similarly, where 20 percent of Boston's population lived below the poverty level, only 11 percent of Seattle's residents were considered to be below poverty. See Table 2.

*Table 2. Demographic Comparison of Boston and Seattle:
Age, Household Composition, Income*

	<u>Boston</u>	<u>Seattle</u>
<i>Age (percent)</i>		
<i>Under 5 Years</i>	5.3	4.9
<i>5 to 17 years</i>	16.3	12.7
<i>18 to 64 Years</i>	65.7	67.0
<i>65 Years and Over</i>	12.7	15.4
<i>Median Age (years)</i>	28.9	32.4
<i>Persons Born in State Where Now Residing (percent)</i>	58.0	44.2
<i>Households</i>	218,457	219,469
<i>Persons per Household</i>	2.40	2.15
<i>Family Households (percent)</i>	53.3	52.0
<i>Nonfamily Households (percent)</i>	46.7	48.0
<i>Median Household Income (\$)</i>	\$12,530	\$16,254
<i>Percent of Persons Below Poverty Level</i>	20.2	11.2

The housing stock in the two cities differed by several measures. Seattle had relatively fewer vacant units than Boston in 1980, and its housing stock was dominated by single-family homes, which made up 57 percent of total units in contrast to 16 percent in Boston. Boston's housing stock is older on average, but Seattle retains much of its stock from earlier in the century: 40 percent of its units were built before 1940. In terms of housing tenure, about one-half of Seattle's units were occupied by renters, compared to three-fourths in Boston. See Table 3.

TABLE 3. Housing and Jobs-Population Ratio:
Comparative Analysis of Seattle and Boston

	<u>Boston</u>	<u>Seattle</u>
Housing, 1980		
Total Units	241,444	229,927
Percent Change 1970-1980	3.9	3.7
Vacant units (percent)	9.5	4.5
Units in Structure, Percent with:		
One Unit	15.6	57.2
5 or More Units	42.8	33.3
Year Structure Built		
Percent Built:		
1970 to March 1980	7.2	10.0
1960 to 1969	9.0	14.6
1939 or Earlier	63.0	40.3
Renter-Occupied Units		
Percent of All Occupied Units	72.8	49.0
Employment/Residents Ratio	1.9	1.6
Persons Working Outside City of Residence (percent)	25.2	16.3

Source: U.S. Bureau of the Census, County and City Data Book, 1983

Brief History. Seattle is a much younger city than Boston. The latter was making plans to fill in the Back Bay when Seattle was established in 1851. Beginning as an industrial center where timber was harvested and milled for export, the Alaskan gold rush of 1897 transformed Seattle into a bustling city of merchants and entrepreneurs. The great fire of 1899 brought rebuilding on top of the old storefronts, creating much underground floor space.

Seattle has prospered from the region's natural resources, trade, and agriculture. In addition, the Boeing Company, the world's leading manufacturer of commercial aircraft, has been the mainstay of the economy since the early growth of commercial air travel. In 1962, the World's Fair established Seattle as a popular tourist destination and entertainment center. The introduction of professional sports teams in the 1960s and 1970s reflected the emergence of Seattle as a large city on the national scene and an economic rival to the older cities on the West coast.

TABLE 4. Average Annual Unemployment Rates, 1984-1988
Seattle and Boston Metropolitan Areas
(percent of labor force unemployed)

City	1984	1985	1986	April*	
				1987	1988
Seattle	7.9	6.6	6.5	6.1	5.1
Boston	4.1	3.4	3.3	3.3	2.5

* Not seasonally adjusted.

Source: U.S. Dept. of Labor, Bureau of Labor Statistics.

TABLE 5. Labor Force and Unemployment, 1980 and 1984,
Seattle and Boston (thousands of persons)

	1980	1984	Percent Change
			1980-1984
Seattle City ¹			
Labor Force	269.2	282.6	5.0
Unemployed	17.1	23.1	35.1
Unemployment Rate	6.4%	8.2%	--
Seattle CMSA ²			
Labor Force	1,047.0	1,103.8	5.4
Unemployed	69.4	89.3	28.7
Unemployment Rate	6.6%	8.1%	--
Boston City			
Labor Force	272.8	288.7	5.8
Unemployed	16.7	15.9	-4.8
Unemployment Rate	6.1%	5.5%	--
Boston Metro Area ³			
Labor Force	1,863.0	1,993.0	7.0
Unemployed	98.3	85.9	-12.6
Unemployment Rate	5.3%	4.3%	--

1. 1980 Seattle City figures based on using ratio of Seattle central city to Seattle PMSA 1984 labor force data.
2. CMSA, Consolidated Metropolitan Statistical Area of Seattle-Tacoma.
3. New England County Metropolitan Area (NECMA).

Source: U.S. Department of Commerce, State and Metropolitan Area Data Book 1986, Table A. Metropolitan Areas and Table B. Central Cities.

ECONOMY

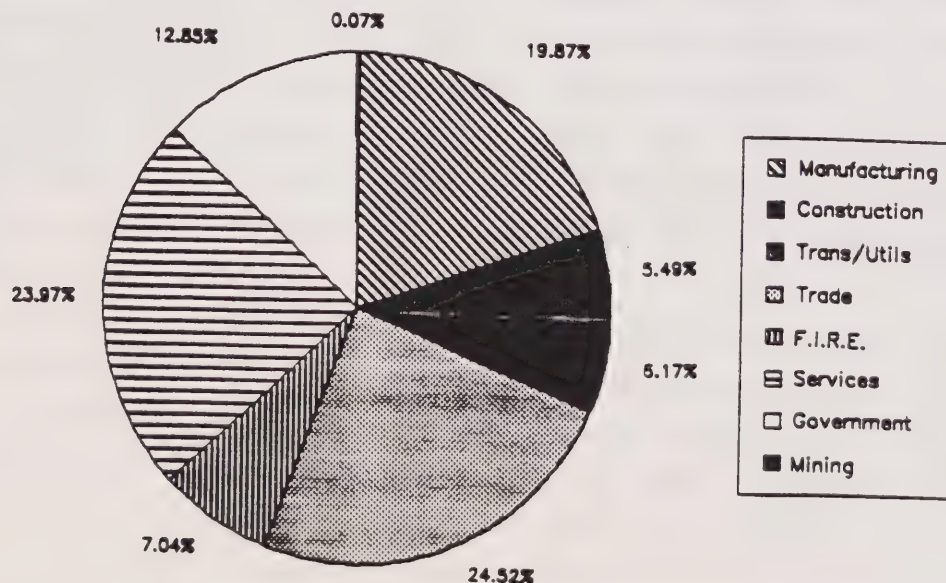
Labor Force and Employment. The Seattle area has not matched the low unemployment rates of the Boston area in the last four years. Seattle's unemployment rate has receded to less than 6 percent only in the last year, while Boston's rates have been consistently around 3.5 percent since 1984. See Tables 4 and 5.

The Seattle metropolitan area specializes in transportation/public utilities, wholesale trade, and finance/insurance/real estate. The area's manufacturing, long dominated by aircraft production, has diminished in importance over the last 15 years. In comparison, the Boston metropolitan area is more specialized in manufacturing and services. See figures One and Two, noting that "PMSA" is the Primary Metropolitan Statistical Area as defined by the Census Bureau, including the central city and closely-surrounding communities.

Among the nation's 35 largest metropolitan areas, Seattle ranked 13th in change in employment from 1978-1984, just behind Boston. Seattle and Boston had nearly identical rates of growth in services from 1978 to 1984, while the Boston area had an edge in the rate of manufacturing growth and Seattle had slightly higher growth rates in retail trade and finance/insurance/real estate.

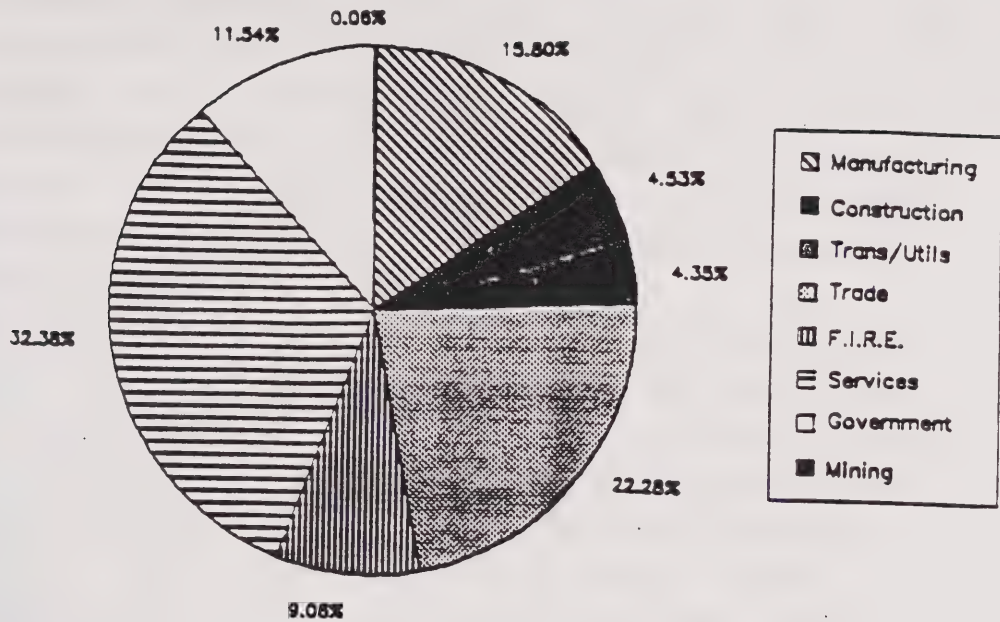
In the last year, Seattle's metropolitan economy has performed well. Total employment increased by 8.0 percent from May 1987 to May 1988, including 7.6

Figure 1. Employment by Industry, Seattle PMSA, July 1988



Source: B.R.A. Research, BLS employment and earnings, October 1988

Figure 2. Employment by Industry, Boston PMSA, July 1988



Source: B.R.A. Research, BLS Employment and Earnings, October 1988

percent growth in manufacturing. Over the same 12 months, total employment in the Boston metropolitan area grew 1.9 percent, and manufacturing employment fell 2.4 percent. One important source of the strength of the Seattle economy is international trade, especially since the recent trade agreements between the United States and Canada.

The Bureau of Labor Statistics projected substantial growth for the Seattle metropolitan area between 1983 and 2000. According to the projections, Seattle's total nonfarm employment would increase at an average annual rate of 2.18 percent, compared to 1.78 percent in the Boston area. Seattle would have 385,000 additional jobs by the year 2000, compared to 720,000 more jobs in the larger Boston area economy. In fact, Seattle would rank 6th in rate of growth among the nation's largest metropolitan areas.

According to information from the Bureau of Economic Analysis, the City of Seattle, represented by King County, has a composition that resembles its metro area, with about 40 percent of its workers employed in service-producing industries including services, finance, insurance, real estate, transportation, and public utilities. In the Boston area, Suffolk County is much more oriented toward the broadly defined services, which made up 57 percent of total employment in 1984.

Major Employers, Institutions, and Government. The largest employers in Seattle are the Boeing Company with over 85,000 employees (including an increase of 10,000 in 1987), the Federal government with about 65,000 workers, and the State of Washington and the University of Washington, each with about 1,500 employees. The University of Washington is the largest of the Seattle area's five universities, four colleges and 11 community colleges-- about one-third the number in the Boston area.

Seattle specializes in health care, but to a lesser extent than Boston. Metropolitan Seattle has as many hospitals, 30, as the Boston area, but with fewer beds and doctors per thousand population. While health care services accounted for 11.1 percent of the Boston area's total employment in 1986, that sector made up 6.5 percent of Seattle's economy. Like Boston, Seattle has experienced considerable growth in high technology industries and biomedical research. The U.S. Department of Commerce projects that growth rates in health care services in Seattle and Boston will match or exceed national growth rates.

City employees numbered 8,332 in Seattle in 1985, not including employees in the independent school district. Boston had 20,572 city employees in that year. The form of government in Seattle is strong mayor/council with nine councillors. The city treasurer, city attorney, and judges are elected independently. Recently, Seattle received a municipal bond rating of "AA", reflecting the city's economic stability. In April of this year, Boston's municipal bonds received an "A" rating, a high level not held by the city since 1975.

Washington has no state corporate or personal income tax. The main taxes for Seattle residents are the property tax and the overall sales tax. The current retail sales tax within Seattle city limits is 8.1 percent, with non-restaurant food items exempt. The property tax, collected by the County, is based on an assessed valuation of residents' property. In 1987, Seattle's property tax rate was \$12.86 per \$1,000 assessed value. Approximately half of the revenues from property taxes are designated to public schools.

The latest American Chamber of Commerce Researchers Association Intercity Cost of Living Index shows the vast difference in cost of consumer items between Seattle and Boston. While Seattle's cost of living was 9 percent above the average for urban areas, Boston's index was 58 percent above average, the highest among the nation's largest cities.

INFRASTRUCTURE AND TRANSPORTATION

Transportation Facilities. Seattle has an international airport which ranks 19th in passenger traffic nationally. Boston's Logan Airport is the tenth busiest. Seattle's port is the 29th largest in the nation in terms of tonnage shipped, and fifth largest on the West coast. Trade with Alaska, Canada and Asian countries accounts for more than half of the shipping. Boston is ranked 27th nationally in tonnage shipped. The Seattle area is served by three railroads, and ferries that travel throughout Puget Sound as well as to Alaska and Canada. Seattle also has access to two major interstate highways, I-5 and I-90.

Flows of commuters into and out of the City of Seattle are less than those in Boston. Reverse commuting amounts to only 16 percent of working residents in Seattle, compared to 25 percent in Boston. Unlike Bostonians, only 7 percent of Seattle's working residents use public transportation.

The Big Dig. As reported in the Boston Globe on August 7, 1988, Seattle is halfway through its 1.3-mile bus and trolley tunnel construction project. Like Boston's Central Artery project, Seattle's "big dig" is a huge tunnel under important streets and near major office, retail and government buildings. Seattle's project differs in that it mines under the core of the downtown area, rather than the periphery of the central business district. The 1.3-mile tunnel will increase capacity and reduce travel times to busy areas of employment and shopping activity. In addition, the tunnel has been designed to allow for future conversion to rail transit. Seattle's \$430 million project involves about a mile less digging and much less cost than the \$1 billion central artery project in Boston.

The impact of the construction project in Seattle is evident, but opinions on the magnitude of the effect differ. As expected, businesses in the immediate construction area have experienced the worst disruption. Yet according to a Small Business Ombudsperson, the tunnel project has not been as bad as anticipated. Business community efforts, along with a healthy, diversified economy have kept the city alive during this extensive construction phase. Retail sales have done very well, up 1 percent for 1987, and unemployment figures for 1987 were below 6 percent. An aggressive promotion and marketing campaign has generated an enthusiasm which has helped many downtown retailers. The Downtown Seattle Association and Touche Ross recently measured sixty firms in

downtown Seattle to see how they progressed during tunnel construction. The firms reported a 1.2 percent net gain in sales volumes for the 1987 calendar year.

DEVELOPMENT

Office, Hotel and Convention

Several construction projects in downtown Seattle are underway. Since the June 1986 kickoff of Seattle's "big dig", construction has begun on seven skyscrapers. By 1990, twenty-three major public and private projects, including a \$152 million convention center, a downtown park and a retail shopping center, are scheduled to be started or completed.¹

The class A office market in Seattle's central business district (CBD) is not as tight as the Boston office market. While Boston boasts 28 million square feet of class A office space with a low vacancy rate of 5.0 percent, Seattle's office market is also healthy with 19.5 million square feet of office space and a current vacancy rate of 11.5 percent. Yearly trends have shown that Seattle's office vacancy rate continues to improve, with a 12.2 percent vacancy reported for 1987, and a 13 percent vacancy rate in 1986 when the stock of office space was 18.9 million square feet.

Seattle's office construction pipeline includes 1.9 million square feet in 1988 and the delivery of another 1.9 million square feet in 1989. Boston will have twice as much new office space in 1988 with 3.8 million square feet coming on line. However, in 1989 Boston's office construction pipeline will taper to approximately 895,000 square feet.

Renting office space in downtown Seattle is inexpensive compared to the rates commonly found in downtown Boston. In Seattle, 1987 rental rates for existing Class A office space ranged from \$15.00 - \$25.00 per square foot, with new construction rental rates slightly more at \$19.00-\$27.00 per square foot. In Boston, high demand for Class A office space stimulates rental rates of \$22.00 - \$45.00 per square foot for existing space, and \$25.00 - \$55.00 for new office construction.

¹ Peter J. Howe, "Seattle's 'big dig' shows what lies ahead for Hub's artery", The Boston Globe, August 7, 1988.

Hotels and Conventions. Seattle in 1986 had 15,841 hotel rooms, compared to 22,804 rooms in Boston; both had a low number of rooms per 1,000 city residents compared to other cities. See Table 6. Seattle's average occupancy rate and average daily room rate have been slowly rising since 1986; average occupancy increased from 66 percent in 1986 to 68 percent in 1988, and the average room price went up from \$67.00 to \$70.00 in the same period. Boston has had a higher occupancy rate— 73 percent in 1986-7, rising to 75 percent in 1988— and average room rates that are more than 50 percent higher, reaching \$110 this year. See Tables 7 and 8.

This year both Boston and Seattle opened new primary convention center facilities. Seattle's Washington State Convention and Trade Center furnishes 567,177 square feet of exhibition space, for a total of 709,754 square feet of meeting space. It is geared to attracting larger convention delegate groups of 2,500 to 7,500. Boston's newly renovated Hynes Memorial Convention Center, supplying Boston with 218,000 square feet of exhibition space for a meeting space total of 450,000 square feet, is expected to boost hotel occupancy rates as well as provide a much needed convention facility for the city. Table 7 compares these facilities and city totals of convention delegates with those in other major cities.

Table 6. Metropolitan Area Population, Employment and Hotel Rooms, Boston, Seattle and Selected Areas, 1986

<u>Metropolitan Area</u>	<u>Population</u> ¹	<u>Employment</u> ²	<u>Hotel Rooms</u> ³	<u>Rooms per 1000 population</u>
Boston	3,695,400	2,302,100	22,804	6.2
Seattle	1,692,000	977,100	15,841	9.4
Atlanta	2,380,000	1,417,400	43,533	18.3
Chicago	6,128,300	3,244,300	61,704	10.1
Dallas	2,203,700	1,465,700	40,118	18.2
Denver	1,582,500	988,700	23,202	14.7
Los Angeles	7,901,200	4,458,100	27,981	3.5
New York	8,376,900	4,496,300	60,998	7.3
Philadelphia	4,768,400	2,328,900	21,610	4.5
San Francisco	1,541,900	1,117,700	36,480	23.7
Washington	3,429,000	2,194,800	54,337	15.8
Houston	3,164,200	1,736,300	36,455	11.5

Source: 1 and 2. U.S. Dep't of Commerce, Bureau of Economic Analysis. 3. "Top Convention Cities," Business Travel News, August 27, 1987.

Table 7. Average Hotel Occupancy Rates in Selected Metropolitan Areas 1986-1988

Metropolitan Area	(in percent)			Rank Among Selected Metro Areas 1986
	1986	1987	1988	
Boston	73.0	73.0	75.0	2
Seattle	66.0	68.0	68.0	12
Atlanta	63.0	63.0	67.0	14
Chicago	69.1	69.9	68.5	8
Dallas	56.7	57.0	59.0	19
Denver	55.7	55.0	57.0	20
Los Angeles	70.1	72.0	74.0	6
New York	76.0	79.0	80.0	1
Philadelphia	66.0	72.0	68.0	12
San Francisco	72.3	74.0	71.0	4
Washington	67.4	67.0	68.0	10
Houston	44.0	51.0	53.0	21

Source: Pannell Kerr Forster, Special Supplement: Trends in the Hotel Industry. United States Cities Projections 1987-1988; Data are actual for 1986, estimated for 1987, and projected for 1988.

Table 8. Convention Facilities and Delegates, Selected Metro Areas, 1986

Metropolitan Area	Primary Center	Exhibition Square Feet	Number of Convention Delegates	
			1985	1986
Boston	Hynes Memorial	200,000	400,000	440,000
Seattle	Washington State	565,177	404,450	425,627
Atlanta	Georgia World	640,000	1,500,000	1,575,000
Chicago	McCormick Place	1,600,000	2,079,900	2,030,000
Dallas	Dallas	600,000	2,002,000	1,967,000
Denver	Currican Hall	100,800	487,946	507,463
Los Angeles	Los Angeles	355,000	725,000	965,031
New York	Jacob Javits	740,000	4,383,000	4,519,000
Philadelphia	Philadelphia	382,000	363,702	365,000
San Francisco	Moscone	265,500	NA	NA
Washington	Washington	381,000	NA	1,143,840
Houston	Houston	1,321,500	709,869	1,064,675

Source: "The Top Convention Cities," Business Travel News, August 24, 1987.

PLANNING AND DEVELOPMENT INITIATIVES

Linkage. Seattle's downtown linkage program, enacted in September 1984, offers downtown developers of office buildings the option of making housing contributions in return for permission to develop at higher densities. The city's new downtown plan focuses on more residential development, especially housing that is affordable to Seattle's downtown workers. A housing bonus system allows developers of office space to receive an increase in floor/area² ratios in return for housing development, as well as for preserving the existing stock of low and moderate income downtown housing. This arrangement is possible through transfers of development rights and the requirement that demolished units be replaced.

Developers may choose a cash option where contributions are made to a housing trust fund, a mortgage assistance program, or to a housing project sponsored by a nonprofit group. The fee structure for cash contributions includes \$15.30 per square foot of added space in the office district and retail core and \$10.00 per square foot in the office expansion district. As of 1986, results of the downtown linkage program in Seattle totaled nearly \$6 million. While in Boston, this program had committed \$35 million by 1986 and over \$49 million by mid-1988.

Zoning. Like Boston, the permit system in Seattle charges normal fees for building permits and code enforcement and inspection. Other land use and zoning approval fees are levied for: land use zoning plans examination and research; short subdivision; variances; and environmental reviews.

Effective as of July, 1985, Seattle adopted new land use policies and a new zoning code for the eleven downtown districts. As shown on the zoning and planning initiatives chart, Seattle has many of the same directives as Boston. Seattle has adopted Inclusionary Zoning, Interim Zoning, Historic Preservation, as well as District Design Guidelines.

In an effort to direct growth opportunities while maintaining the city's unique character, the Seattle Department of Community Development produces neigh-

² Floor/area ratio is the relationship between the amount of floor space inside a building and the size of the lot on which the building sits.

current development status, transit availability and improvements, as well as financial incentives for businesses and developers. To date, investment guides have been published for the Chinatown/International district and Pioneer Square.

ZONING & PLANNING INITIATIVES IN MAJOR CITIES

	Boston	Seattle	Atlanta	Baltimore	Chicago	Dallas	Denver	Los Angeles	Minneapolis	New York	Philadelphia	San Francisco	Washington D.C.
Master Plan	●	●	●			●	●	●	●		●	●	●
Height Limits	●	●	●	●			●	●	○	●		●	●
Interim Zoning	●	●			○							●	
Design Review Commission	●		●	●			●	●					○
Planned Development Area (PUD)	●	●	●	●	●	●	●	●	●	●	●	●	●
Transportation Access Plans	●		●	●		●	●	●	●	●		●	○
Housing Incentives	●	●	●				●			○		●	●
Inclusionary Zoning	○	●				○		○	○				
Incentive Zoning	●	●	●		●		●		●	●	●		●
Targeted Growth Areas	●		●	●	●	●	●	●	●	●	○	●	●
Housing Linkage	●	●	○	○	○	○		○		○		●	●
Job Linkage	●		○	○						○	○	○	
Historic Preservation	●	●	●	●	●	●	●	●	●	●	●	●	●
Environmental Protections	●	●	●		○					●		●	
Institutional Master Plans	○	●	●				●				●	●	●
Open Space Zoning	●	○		●	●	●	●				●	●	○
District Design Guidelines	○	●	●	●	●	○		●	●	○	○	●	●
Neighborhood Planning	○	○	●	●	●	●	●	●	●	●	●	○	●
Barrier Free Access	●	●	●				●	●	●			●	●

○ Proposed

● Pending or In Progress

■ Adopted

Source: Boston Redevelopment Authority, "A Plan to Manage Growth Briefing Material".

Sources

- Boston Redevelopment Authority, Department of Policy Development & Research: various reports.
- Bureau of the Census, County and City Data Book 1983.
- Bureau of the Census, State and Metropolitan Area Data Book 1986.
- City of Seattle, Department of Community Development:
"Seattle Economic Outlook 1987";
"Seattle Chinatown International District--An Investment Guide," 1988;
"Seattle Investment Guide to Pioneer Square," 1988.
- City of Seattle, Office for Long-range Planning, Research Section:
"Summary of the Land Use & Transportation Plan for Downtown Seattle," November 1985.
- Coldwell Banker, "Seattle Area Office Market Report", 2nd Quarter 1988.
- Cushman & Wakefield, "Focus on Marketrends 1988".
- Downtown Seattle Association: "Annual Report, 1988."
- Greater Seattle Chamber of Commerce:
"Introducing Seattle," 1988;
"ACCRA Cost of Living Index, First Quarter 1988."
- Howe, Peter J. "Seattle's 'big dig' shows what lies ahead for Hub's artery." The Boston Globe, August 7, 1988.
- King County, Department of Comprehensive Planning
- Municipality of Metropolitan Seattle:
"Local Improvement District Special Benefit Assessment Report--Downtown Seattle Transit Project," June 1987.
- Puget Sound Council of Governments
- Susskind, L. and G. McMahon. "Reframing the Rationale for Downtown Linkage Programs." New York Affairs, Vol. 10, No.2 & 3, Winter 1988: 203-204.
- Urban Land Institute, "Downtown Linkages." April 11, 1985, Figure 1.
- The World Almanac 1988, p. 637.

Map of Downtown Seattle and its "Big Dig"

